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Abstract

Domestic and export marketing prospects for small scale growers in north Queensland

This paper examines prospects for small scale farm foresters in terms of marketing factors that are influenced by the industrial plantations of timber in Australia and responses available to small scale forestry. Factors that promote the prospects of lesser used and lesser known species are used to evaluate market prospects for north Queensland timber. Market prospects are identified and the importance of end user requirements in achieving these is demonstrated by examples of successful market approaches to sales of Australian sourced timber.

Keywords: small scale forestry, marketing of lesser known species, export criteria for farm forestry, market prospects for timber

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Author background

Michael Cox is an academic in the School of International Business at Queensland University of Technology, Australia. His interest in forestry originates from work done with the Queensland Government Department of Primary Industry forestry department in pricing of plantation timber. He has also been a member of trade delegations to China and Japan to find markets for a local species *Auracaria cunninghami.* Specific connections to small scale forestry are an association with the IUFRO Small Scale 3.08 group and an attachment to CRC TREM in Queensland where his interest in small scale forestry potential has developed.

Introduction

Small scale farm foresters do not contribute the majority of supply to the Australian national forest estate but their contributions are significant in the overall supply of timber in Australia. The last National Forest Inventory (NFI, 2002) indicated an estate in the region of 1.5 million hectares and out of that total estimates indicate up to 16% involved small scale farmers with industrial joint ventures and leasehold arrangements with government or private industry (Cox 2002). An extended insight of this Inventory assessment was that only 5% of the national forest plantation involved farm foresters contributing to the national plantation supply of wood from their own land without industrial associations.

The national forestry industry is dominated by industrial wood plantations either state managed or privately owned and to that extent the market prospects, both domestically and internationally for farm forestry are influenced by industrial species choices, pricing behaviour and market selection. Plantations of *p.radiata* and *e. globulus* in Western Australia and Tasmania illustrate how alliances between industrial foresters and farm forestry can and do work successfully. As a result of this, the market behaviour of farm foresters could be described as predetermined where industrial influence dictates the best choice is through a joint venture or cooperative alliance with a dominant supplier or processor in the region where the farm forester plants.

For small scale growers in Queensland there is an infant framework of Regional Plantation Committees that may provide the central structure necessary to displace the industrial and government model of association evident elsewhere for farm forestry adoption. The timber industry in North Queensland has differences that set it apart from the industrial plantations of the southern states and south east Queensland, the most obvious being the timber species available and climate that might be used to support distinct marketing prospects.

Queensland Wood Supply, Pricing and Market Lessons

Australian state governments have traditionally supplied wood through managed forests on crown land holdings and allowed processors access to their resources. In using contracts that lasted between 5 and 40 years in length they effectively set the base prices in the market for logs of accepted species though royalties, residual payments and recently in Queensland the application of a dedicated pricing index called the WWI (Wood Weighted Index) for softwoods that is now also being extended to hardwoods. These supply arrangements influenced the markets for other timber species through the indicative pricing lists that emerged for product use after processors established market prices for lumber derived from logs for these species.

As an example of how markets can be affected by supply changes, the market for mouldings (and structural timber) in Queensland were for many years partly supplied by the *p.radiata* of southern states with the balance from Queensland derived *auracaria cunninghamii.* They competed in the Queensland state market for housing industry mouldings and there was an inherent advantage to the locally supplied species due to location and royalty arrangements with the state government supplied logs. This situation was challenged when New Zealand derived *p.radiata* began entering the market in much greater volumes from the end of the 1990's with high quality lower priced product and in later years cheaper finger-jointed moulding options. The pressure by the local industry to change the pricing regime led to a revision of the supply arrangements by the state to allow the processors to meet the market

price of these new competitors (DPIF Yearbook 2001/02) but the local industry was put on notice that it had to look for new markets for long term survival.

Queensland processors reacted to this by acknowledging that *Auracaria cunninghamii* was wrongly positioned in the market and efforts were subsequently made in Chinese and Japanese markets to reposition this species by entering overseas markets and aligning it with the related *agathis* species and pricing in those destination markets. The twin benefits that have emerged are a higher export price level and newly emerging overseas markets.

Any Farm forestry growers in Queensland that grow this species would benefit from this realignment of the industry and state government to an export market strategy but small-scale suppliers of this species are negligible in overall market volumes. There are lessons for timber marketing though, and the first is that market prospects for small scale suppliers are typically aligned to industrial processors success in developing new markets. The second lesson is that market prospects of lesser known species (LKS) and lesser used species (LUS) often hinge upon a buyers acceptance of name and perceived characteristics of wood. An example of managed perceptions is the case of e. regnans/obliqua/delegatensis These are Australian hardwoods whose characteristics have been used to provide a relatively uniform product for chosen markets. These species are collectively known as Tasmanian Oak or Victorian Ash in export and domestic markets and attempt to align their product brands to trade on customer familiarity with ash and oak species in overseas markets like the USA and Japan. They have been successful in doing so through the central market desk of Australwood in Victoria.

Market Prospects depend on more than ensuring supply

In Queensland the variety of species of timber grown industrially extends from softwoods to exotics and in recent times a greater state government commitment to hardwoods. The state government plans to plant 5000 hectares in the south east by 2009 in a coastal swathe extending to Gladstone. They are actively seeking small scale growers with economic lot sizes for joint venture or land use contracts to be part of the states hardwood plantation vision. This clear support by state forestry will benefit small scale growers in two ways, firstly in more secure revenue arrangements for growers who can take advantage of the *profit a prendre* legal arrangements by the state government and the rental returns that are possible given these new legal arrangements. Secondly, the harvesting and marketing arrangements and therefore prospects for the sales of timber will be the responsibility of the Queensland government DPI Forestry. The inference in this government supported plantation approach is that the prospects of small scale suppliers will be tied to the success of the scheme.

The prospects for farm forestry that plant species aligned with industrial interests or state governments in joint venture or leasehold arrangements provide greater certainty for the small scale forester but perhaps less potential profit. There are no independent ‘marketing’ opportunities in this scenario. Farm foresters are ‘price takers’ in this type of industry structure and their ‘prospects’ are limited to the returns on their contractual agreements with their partners.

It is reasonable to think that the future success of Queensland hardwoods will require a similar central market desk approach to that provided by Australwood of Victoria if market prospects for its timber are to be realised. The Victorian Australwood group began in 1993 when a dozen sawmill companies formed a network, and they now market Australian hardwoods in overseas markets such as Japan, China and the USA. Their market prospects are enhanced by

using an approach that for competitive advantage relies on the promise of more stable output from the combined supply of its members, a sustainable timber message and technical support for customers in the markets they enter. This kind of solution is a marketing approach to the industry and it requires an acceptance of the need to manage the process from growing trees to delivering them to the end user.

A marketing approach implies that products are tailored for the end consumer and if necessary the processes, production and delivery are adjusted to the end market needs to enhance success. As Toivonen (1997) states, "The marketing personnel need to be able to deliver the end-users´ requirements regarding the wood material for those making the decisions about what kind of wood raw material is used." In marketing material for Australwood this is demonstrated where their products characteristics and grades are identified for consumers to support their buyers need for information and a uniform approach to their timber offerings in any prospective market. In entering the Japanese market some of the key Australwood ingredients for success according to its director (Gooding 2000) were clear government support, effective market entry research, close relationships with potential customers and dealing directly with users rather than trading houses. Australwood has built on this approach to enhance its export prospects. It concentrates on a few end uses for its products such as flooring and cabinet work and its timber grades make a feature out of timber management difficulties such as blemishes caused by pests by having a range of grades from feature to rustic grades.

Farm Forestry and LUS

Farm foresters who are not aligned with state or private interests will not necessarily plant industrial species. The reasons for this are as diverse as the species planted or available for harvest. The variety of supply of available timbers from farm forestry in Queensland is potentially much greater than in other states, due to the range of climate zones and productive rainforest areas found in the state. The number of species of rainforest and hardwood timbers available for use in cabinet making in Queensland gives an indication of the variety available in the market. A recent listing of timber species supply in the Queensland market suggests that commonly available timber types can range to up to 50 species and this list would not exhaust the possible timbers that might be available in the market (Smorfitt et al, 2002). On the one hand this can be seen as an advantage to the end user by providing a large range of choices for cabinet makers but there are several problems that are demonstrated by this range of possible timber material that can affect market prospects. LUS have inherent problems such as maintaining uniform quality, supply certainty, understanding structural characteristics and workability of the timber, pricing and even transport requirements.

A survey done for the ITTO (Eastin et al. 2000) involving Ghanaian sawmill and value-adding wood processing industries and US importers and wholesalers of tropical hardwood lumber and veneer gives an indication of the factors that enhance prospects for LUS species in markets. Table 1 indicates the factors and their relative importance as identified by the respondents. The most important factor for success identified was reliable supply and this is understandable in markets where timber is treated as a commodity by distributors and retailers. In a farm forestry sector where a large variety of species has been the norm this is unlikely to be achieved.

A more analytical assessment of the factors implies the need for 'organisation' to achieve reliable supply, the provision of appropriate technical and promotional material and the

achievement of certification for many species. In addition there is a need for 'collaboration' in meeting the need for sample volumes and pricing for a market entry strategy. These factors are as important in a domestic market as they are in an export market to achieve the success all growers have in mind when they plant.

Table 1: Importance rating of different factors in promoting the introduction and acceptance of LUS. Summary rating of Ghanaian and US responses (n=120 firms)

Factor	Importance rating
Availability of a reliable supply of product	6.34
Availability of technical/promotional material	5.68
Availability of small trial volumes	5.38
Low trial price	4.86
Acceptance of the LUS by an influential firm	4.82
Risk-free trial period	4.48
Certification of the LUS	4.39

A major question that arises for the farm-forestry sector is whether the current organisational framework can provide the organisation and collaboration required to deliver these factors. Achieving this is hard enough in a commercial environment where goals are clearly identified and participants have a model of supply chain collaboration in other industries to identify with in striving to create new market prospects and profit from their joint collaborative behaviour. In the Australwood case mentioned earlier the species are limited in number and linked by a uniform and marketed brand name and the commitment comes from commercial timber mills over the last decade.

Market Prospects, Species and Differentiation

If farm foresters commit themselves to differentiation of species planted rather than using species indicated from industrial forestry there can be a benefit in the sense that unique timbers can be grown in relatively smaller plantations such as that provided by farm foresters in regions that are less attractive to major industrial plantations. A timber species such as African Mahogany (*Khaya Senegalensis and Khaya Nyasica)* commands a premium price in end use markets in the northern hemisphere, is a recognised furniture species and in north Queensland has the potential to grow at a rate much faster in managed plantations than northern hemisphere sources of this timber. This species can serve to illustrate how the prospects for north Queensland timbers can be enhanced.

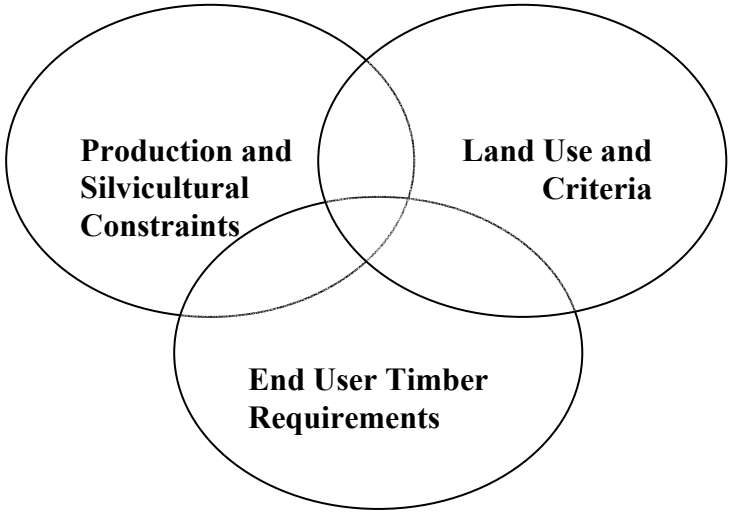
Adopting a unique species as a plantation choice can also create difficulties. Mahogany has rotation periods that are relatively long but this can be offset by its existing premium pricing and the climatic benefits of faster growing in north Queensland. Other difficulties that remain are the cost of establishing a market presence for a new source of supply and establishing appropriate and supported standards for an end use market. It is likely these higher establishment costs will be outweighed by the 'absolute scarcity' to end use demand of a timber like mahogany.

In contrast to mahogany radiata pine is ubiquitous and can only ever face 'relative scarcity' in markets due to the large range of producers that exist in world markets. Farm foresters who

plant radiata can only ever hope to get a base market price and few opportunistic sales. As a generic commodity timber its characteristics have been enhanced by selected planting and management methods and its end uses have been expanded. Radiata now has many enhanced characteristics due to constant improvement in management. It is capable of high structural strength with the right drying techniques and as earlier mentioned has been successful in crowding out hoop pine (*auracaria cunninghamii*) in the mouldings market in Queensland. Its prospects are clearly aligned with industrial suppliers, but this can be attractive to farm foresters who want certainty in silvicultural management techniques and end use markets.

Unique or industrially different timbers that are chosen by farm foresters face the problem of achieving a balance between meeting the constraints of their micro environment, their own land use needs and the special requirements of different species. They often neglect the important factor that will enhance their market prospects for financial return in the future, an assessment of the needs of potential end users in the market. Figure 1 demonstrates the necessary conceptual integration of these factors in the decision of the farm forester to plant a particular species.

Figure 1: Market Prospects Need to be Part of the Planting Decision



African mahogany has an established high value end use market. Its end uses are well established and so parquetry flooring, short lengths for feature timber, wood turners pieces, the high end furniture market and veneer demand will be supplied from different stages of the tree growth and match end user requirements. Its market prospects are enhanced by its known features in destination markets. Farm foresters who plant this species are therefore enhancing their prospects for successful marketing of their timber.

Japanese Market Prospects for the Timbers of North Queensland

Japan is our major export partner and a major world market for timber, along with China these two markets are the best prospects for any timber exporter in our region. The Japanese market in particular has a large market for timber housing and timber fitouts beyond its population size. The Japanese population have a preference for timber buildings. In 1999 Japan had 1.2 million housing starts compared to the USA which had 1.67 million yet Japan has less than

half the United States population. The latest estimates for the USA are that 1,732,000 housing units are planned for 2003 and in Japan the Federation of Home Builders Associations revised upward the previous estimates on housing starts for 2003 they made in April 2003 by 11,000 units to 1,117,000 units. These figures indicate the relative importance of timber housing in their market and prospects for trade. In addition to new housing starts there is a large market for rebuilding and refurbishment. The Japan Lumber Journal reported in September that in Japan there are around 20 million units of over-30-year-old houses, for which rebuilding is necessary. Among them, wooden houses comprise about 10 million units.

Japanese timber housing demand is strong for religious, cultural and aesthetic reasons in their society. Their use of timber as a feature is also common. The Japanese consumer favours premium products and rainforest timbers properly presented can be successful in this sophisticated market. One reason is that the size of the market provides the natural occurrence of demand segments for the full range of timbers, but the market demands attention to detail that the individual farm forester and even a representative organisation would find difficult to service.

The traditional nature of timber demand in housing can work against market prospects for rainforest timbers. This occurs because most north Queensland rainforest timbers have strong grain features and colour. This is highly desirable in feature timbers and high value furniture, flooring and veneers. The problem is that other features like weight and appearance in rainforest hardwoods can become a problem for a market that wants light, strong, pale and straight grained timbers. As an example the typical timber species used in post and beam Japanese houses illustrates the current demand in the market. Typical timbers used are Japanese cedar *(Cryptomeria japonica)*, Sitka spruce *(Picea sitchensis*), White spruce *(Picea glauca)*, Hemlock *(Tsuga heterophylla)* and Radiata *(p.radiata)* among others. Meeting JAS and JIS standards for small supplies and non-uniform species is another problem in this market. Current prices of $US380 per cubic meter for 2x4 timber shows that it is a lucrative market but one that deals in high volumes and unless a narrow market can be identified and targeted as a prospect, such as *shoji and fusuma(sliding doors) or amado(rain doors)* in Japanese housing then the wider market would be too difficult to service.

Rainforest timbers have greater prospects in high end furniture markets, flooring and veneers. Quarter sawn timbers that can be sliced have great appeal in the Japanese market and small volumes of high grade timber that can be sliced for veneers as thin as one millimetre can command high prices in these markets. Farm foresters may need to ‘rename’ domestic species to create customer identification and acceptance in destination markets and educate the consumer. This type of marketing commitment can take many years and often the easiest solution to enhance prospects is to target specific companies rather than general sales in destination markets. Involving potential end user companies at an early stage rather than when the timber is harvested would enhance the prospects for sales by allowing them to factor in potential supplies. For the farm forestry sector a common purpose is necessary to realise these prospects.

Conclusion

This paper has outlined a view of issues that affect the market prospects of the small scale forester. The conclusion reached is that an alignment with industrial suppliers or government interests provides farm foresters with the most certainty but the least say in prospects for their timber. Market prospects can be realised when selected species, specific outputs or targeted

markets are pursued in a regional or umbrella organisation that helps to establish the credentials for a long term marketing approach to be achieved that benefits the owners of the resources.

Queensland farm forestry in the north of the state has less chance of alignment with industry plantations or state governments. Its supply of timber species is relatively more erratic and its available species are more diverse which creates problems when prospects for its timber output are considered. These problems are compounded by distances to populated markets, timber milling options, lack of species recognition and a lack of coordinated timber marketing experience.

There are certain strategies that might be pursued to enhance these prospects in domestic and export markets. A fundamental change in behaviour may be needed to meet these requirements. Farm foresters have planted trees with multiple criteria in mind in the past with little thought to end use and often a vague notion of returns. This approach has meant uncertain returns and a lack of prospects for sellers aside from opportunistic sales. In order to improve prospects for small scale forestry species some suggestions have been made to adopt niche marketing behaviour patterns, target specific segments within markets domestically and overseas, attach timber species to defined end uses and align output to specific end users as part of a long term relationship.

The best prospects for these approaches occur in our largest market Japan. The difficulties in a sustained marketing campaign that coordinates many diverse growers to realise these prospects may be insurmountable but other organisations have shown that it is possible.

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